



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/646,976

08/22/2003

Martin Lund

14218US02

1056

23446 7590 04/02/2007
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

PAN, JOSEPH T

ART UNIT

PAPER NUMBER

2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/646,976	Applicant(s) LUND, MARTIN	
	Examiner Joseph Pan	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response filed on January 25, 2007 has been carefully considered. Claims 1-10, 12-13, 17-22, and 24 have been amended. Claims 1-24 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 10-18, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman et al. (U.S. Patent No. 5,951,651), hereinafter "Lakshman", in view Chiussi et al. (U.S. Patent No. 5,689,505), hereinafter "Chiussi"

Referring to claim 1:

i. Lakshman teaches:

A method of providing physical port security in a digital communication system, comprising:

receiving a frame of digital data at a network device (see figure 1, elements 30 'source address', 35 'destination address'; figure 7, element 120 'packet received?'; column 1, lines 58-64; and column 5, lines 35-64 of Lakshman);

generating a destination port bit map based on the destination address information contained in said frame of digital data (see e.g. figure 1, element 35 'destination address'; figure 7, element 130a 'generate bitmap vector (k=1)'; column 1, lines 58-64; and column 5, lines 35-64 of Lakshman);

comparing said destination port bit map with a physical port security bit map to generate a bit map of allowed destination ports, wherein said physical port security bit map is generated based on information in said received frame of digital data (see figure 7, element 135 'computer intersection of all bitmap vectors'; column 1, lines 58-64; and column 5, lines 35-64 of Lakshman); and

forwarding said frame of digital data to one or more of said allowed destination ports (see figure 7, element 140 'apply filter rule of highest priority' of Lakshman).

Lakshman discloses the bit map generated for various parameters such as source address (see figure 7 of Lakshman). However, Lakshman does not specifically mention the port bit map.

ii. Chiussi teaches multicasting cells in switching networks wherein Chiussi discloses the using the port bit map for selecting port(s) for routing (see column 5, lines 55-62 of Chiussi).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Chiussi into the method of Lakshman to utilize the port bit map.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Chiussi into the system of Lakshman to utilize the port bit map, because Chiussi utilizes the port bit map to select port(s) for routing, and Lakshman also utilizes bit map(s) for routing based on various parameters in the data packet, therefore Chiussi's teaching would enhance Lakshman's system.

Referring to claims 2, 13:

Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). They further disclose the logical AND (see column 5, lines 35-64 of Lakshman).

Referring to claims 7, 18:

Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). They further disclose the router (see column 1, lines 6-8 of Lakshman).

Referring to claim 10:

Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). They further disclose the process (see column 2, line 40 of Lakshman).

Referring to claim 11:

Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). They further disclose that the bit map is generated dynamically (see column 14, lines 27-31 of Chiussi).

Referring to claims 3-5, 14-16, 23:

Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). They further disclose the source address and the destination address of the digital data frame (see figure 1, elements 30 'source address', 35 'destination address' of Lakshman).

Referring to claims 6, 17, 22:

Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system, (see claim 1 above). They further disclose the IP address (see column 1, lines 19-20 of Lakshman).

Referring to claim 12:

i. Lakshman teaches:

A system for providing physical port security, comprising:

At least one processor within a network device, said network device having a communication port for receiving digital data from a digital communications system and two or more physical data ports for forwarding said digital data, said at least one of processor enables (see figure 2, element 60 'output link'; and column 1, lines 44-64 of Lakshman):

Generation of a destination port bit map based on destination address information contained in said received digital data (see e.g. figure 1, element 35 'destination address'; figure 7, element 130a 'generate bitmap vector (k=1)'; column 1, lines 58-64; and column 5, lines 35-64 of Lakshman);

Comparing of said destination port bit map within a physical port security bit map to generate a bit map of allowed destination ports, wherein said physical port security bit map is generated based on information within said received digital data (see figure 7, element 135 'computer intersection of all bitmap vectors'; column 1, lines 58-64; and column 5, lines 35-64 of Lakshman); and

Forwarding of said digital data to one or more of said allowed destination ports (see figure 7, element 140 'apply filter rule of highest priority' of Lakshman).

Lakshman discloses the bit map generated for various parameters such as source address (see figure 7 of Lakshman). However, Lakshman does not specifically mention the port bit map.

ii. Chiussi teaches multicasting cells in switching networks wherein Chiussi discloses the using the port bit map for selecting port(s) for routing (see column 5, lines 55-62 of Chiussi).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Chiussi into the method of Lakshman to utilize the port bit map.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Chiussi into the system of Lakshman to utilize the port bit map, because Chiussi utilizes the port bit map to select port(s) for routing, and Lakshman

also utilizes bit map(s) for routing based on various parameters in the data packet, therefore Chiussi's teaching would enhance Lakshman's system.

Referring to claim 21:

Lakshman and Chiussi teach the claimed subject matter: an intermediate network device (see claim 12 above). They further disclose the IP data (see figure 1, element 20 'data packet' of Lakshman).

Referring to claims 24:

Lakshman and Chiussi teach the claimed subject matter: an intermediate network device (see claim 12 above). They further disclose that the bit map is dynamically altered based on a variable parameter (see column 14, lines 27-31 of Chiussi).

4. Claims 8-9, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman et al. (U.S. Patent No. 5,951,651) in view Chiussi et al. (U.S. Patent No. 5,689,505), and further in view Klein et al. (U.S. Patent No. 7,143,132 B2), hereinafter "Klein".

Referring to claims 9, 20:

i. Lakshman and Chiussi teach the claimed subject matter: a method of providing physical port security in a digital communication system, (see claim 1 above). However, they do not specifically mention the local area network.

ii. Klein teaches distributing files from a single server to multiple clients via cyclical multicasting wherein Klein discloses the local area network (see column 1, lines 14-15 of Klein).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Klein into the method of Lakshman and Chiussi use a local area network.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Klein into the system of Lakshman and Chiussi use a local area network, because Lakshman and Chiussi teach a method of providing physical port security in a digital communication system, and Klein teaches distributing files from a single server to multiple clients via cyclical multicasting, therefore Klein's teaching could be beneficial to Lakshman and Chiussi.

Referring to claims 8, 19:

Lakshman, Chiussi and Klein teach the claimed subject matter: a method of providing physical port security in a digital communication system, (see claim 1 above). They further disclose the network file server (see column 2, lines 46-48 of Klein).

Response to Arguments

5. Applicant's arguments, filed on January 25, 2007, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed

Art Unit: 2135

within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

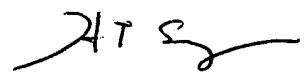
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Joseph Pan

March 19, 2007


HOSUK SONG
PRIMARY EXAMINER